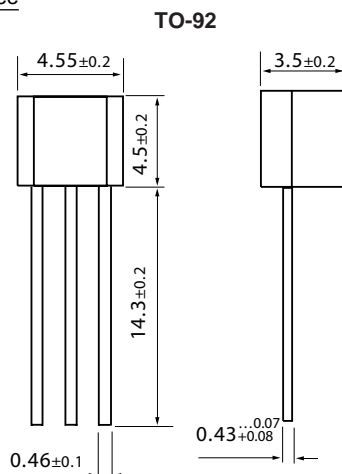


RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

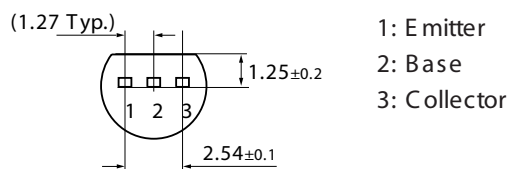
**FEATURES**

- Complement to KSB564A
- Collector Current :  $I_C = 1A$
- Collector Dissipation :  $P_C = 800mW$



**MAXIMUM RATINGS (T<sub>A</sub>=25 unless otherwise noted)**

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	1	A
P <sub>C</sub>	Collector Power Dissipation	0.8	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C



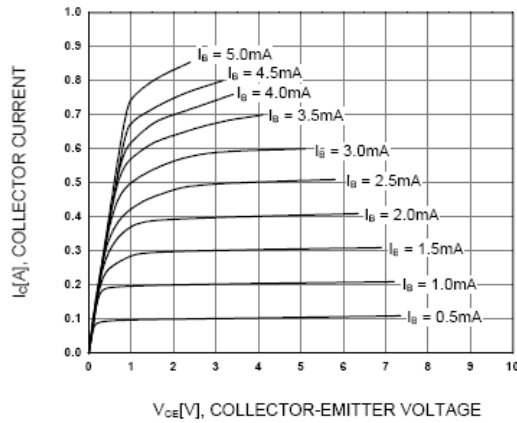
**ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100uA, I <sub>E</sub> =0	40			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	30			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100µA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =30V, I <sub>E</sub> =0			0.1	µA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	70		400	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =1A, I <sub>B</sub> =0.1A			0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =1A, I <sub>B</sub> =0.1A			1.2	V
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =6V, I <sub>E</sub> =0, f=1MHz		16		pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =10mA		130		MHz

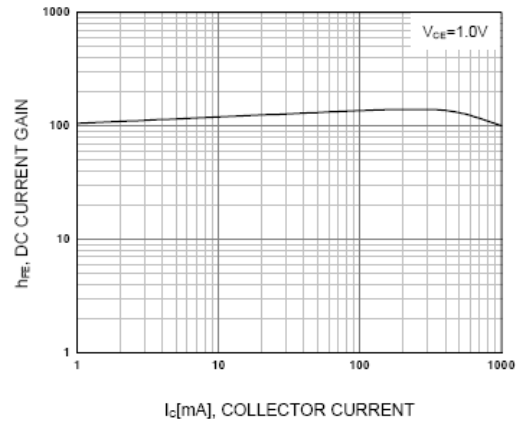
**CLASSIFICATION OF h<sub>FE</sub>**

Rank	O	Y	G
Range	70-140	120-240	200-400

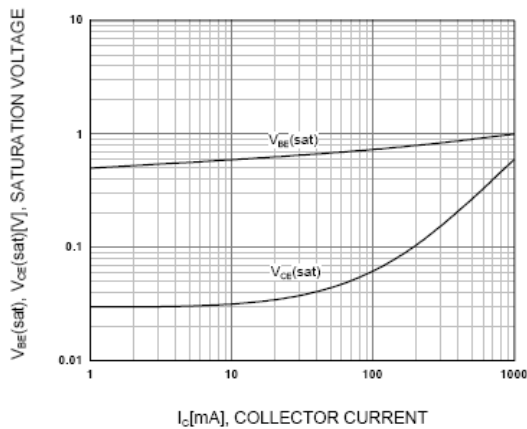
**Characteristics Curve**



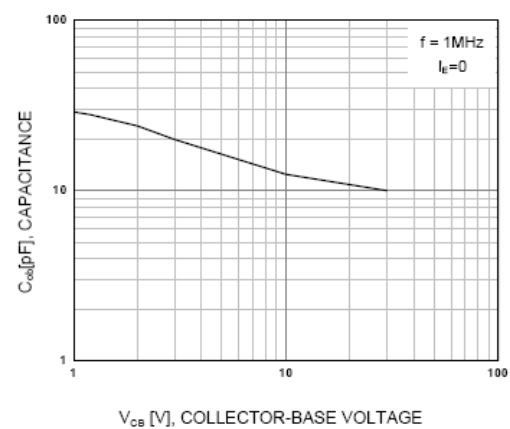
**Figure 1. Static Characteristic**



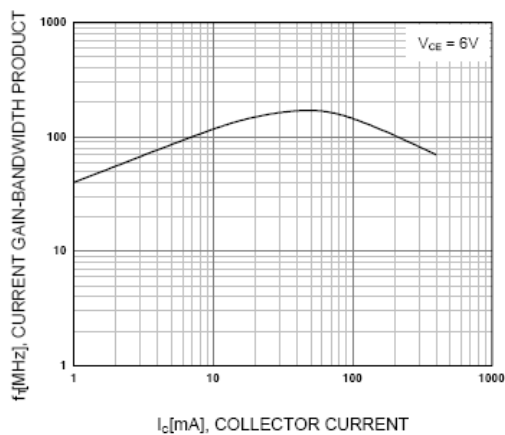
**Figure 2. DC current Gain**



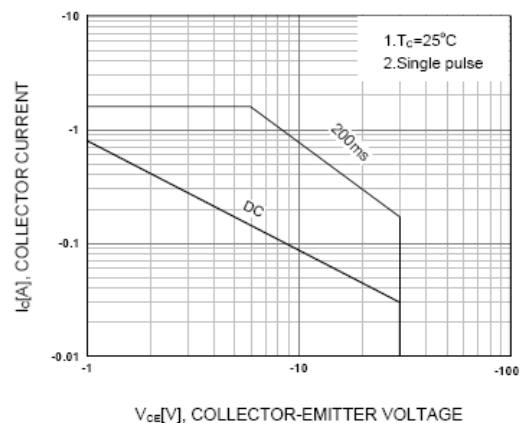
**Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Figure 4. Collector Output Capacitance**



**Figure 5. Current Gain Bandwidth Product**



**Figure 6. Safe Operating Area**